

## Abstract of the Disclosure

An optical semiconductor device includes an optical semiconductor element, a semiconductor region, and a buried layer. The optical semiconductor element is formed on a semiconductor substrate. The

5 semiconductor region opposes the optical semiconductor element and essentially surrounds the optical semiconductor element to form walls. The buried layer is arranged between the walls of the semiconductor region and the optical semiconductor element and formed

10 by vapor phase epitaxy. In this optical semiconductor device, a distance between the wall of the semiconductor region and a side wall of the optical semiconductor element is larger in a portion in which the growth rate of the vapor phase epitaxy in a horizontal direction

15 from the side wall of the optical semiconductor element and the wall of the semiconductor region is higher.